

C providing a hollow member extending through the resiliency-providing material, the hollow member being configured to guide the peripheral device to the sensing assembly.

REMARKS

Claims 174-200 are pending in this Application, with claims 174, 184-187, 190, and 198-200 being independent claims. Claims 85-173, including non-elected claims 91, 96, 98-100, 107-126, 129-130, 133-139, 141-142, 149-162, and 166-173 have been cancelled without prejudice to or disclaimer of the subject matter contained therein.

Claims 85-88, 90, 92-95, 97, 101-105, 128, 131-132, 140, 143-147, and 164-165 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,800,179 to Bailey ("the *Bailey* patent"). Claims 89, 106, 127, 148, and 163 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the *Bailey* patent in view of U.S. Patent No. 5,769,640 to Jacobus et al. ("the *Jacobus* patent"), and further in view of U.S. Patent No. 5,800,178 to Gillio ("the *Gillio* patent"). Although these rejections are moot in view of the cancellation of claims 85-173, new claims 174-200 are discussed below in reference to the cited references.

I. The claims are patentable over the *Bailey* Patent:

A. *Claims 174-183, 185, 187-197, and 199 are patentable over the Bailey Patent*
Independent claim 174 recites: "a pivotable orifice configured to receive a peripheral device." Likewise, independent claim 185 recites "a pivoting mechanism." Independent claim 187 recites: "[a plurality of] mock anatomical sites being pivotably coupled to [a] housing." Independent claim 190 recites a method including: "providing a pivotable mock anatomical site." Independent claim 199 recites a method including: "receiving a peripheral device at a pivotable mock anatomical site."

The *Bailey* patent is directed to a simulator for simulating minimally invasive medical procedures. The device disclosed in the *Bailey* patent includes a housing (Fig. 2, 1) having an opening (Fig. 2, 9). An implement (Fig. 2, 2) is inserted into the opening (Fig. 2, 9). See column 5, lines 23-25. *Bailey* states that to simulate a "true minimally invasive surgical instrument, the implement 2 may be moved axially (or laterally) and rotationally relative to the housing."

Column 5, lines 27-29. *Bailey's* apparatus has a fixed orifice, and the apparatus relies solely on the manipulation of the implement (2) within the housing to simulate a medical procedure.

The *Bailey* patent fails to disclose or suggest “a pivotable orifice configured to receive a peripheral device,” “a pivoting mechanism,” “[a plurality of] mock anatomical sites being pivotably coupled to [a] housing,” “providing a mock anatomical site,” or “receiving a peripheral at a pivotable mock anatomical site,” as recited in independent claims 174, 185, 187, 190 and 199, respectively.

Because *Bailey* fails to teach all elements of independent claims 174, 185, 187, 190 and 199, claims 174, 185, 187, 190 and 199 are patentable over the *Bailey* patent. Claims 175-183, 188-189, and 191-197 depend from independent claims 174, 187, and 190, respectively, and are allowable for at least that reason.

B. Claims 184 and 198 are patentable over the Bailey patent

Independent claim 184 recites: “a sensing assembly ... configured to detect insertion and removal of the received peripheral device.” Likewise, independent claim 198 recites: “detecting a manipulation, insertion, and removal of the first engaged peripheral device; and detecting a manipulation, insertion, and removal of the second engaged peripheral device.”

The simulator disclosed in the *Bailey* patent includes a sensor (Figs. 2, 3, item 10), which serves to “provide accurate sensing of the implement 2 relative to the housing 1.” Column 5, lines 35-37. *Bailey's* sensor assembly 10 includes a force sensor (Fig. 5(a), 31), a movement sensor (Fig. 2, 17), and a penetration depth sensor (Fig. 7, 43). *See generally* column 8. The *Bailey* patent fails to disclose or suggest “a sensing assembly ... configured to detect insertion and removal of the received peripheral device,” as recited in independent claim 184, or “detecting a manipulation, insertion, and removal of the first engaged peripheral device; and detecting a manipulation, insertion, and removal of the second engaged peripheral device,” as recited in independent claim 198.

Because *Bailey* fails to teach all of the elements of independent claims 184 and 198, Applicants believe that independent claims 184 and 198 are allowable over the *Bailey* patent.

C. *Claim 186 is patentable over the Bailey patent*

Independent claim 186 recites: “a second peripheral motion assembly . . . configured to engage the second nested instrument of the plurality of nested instruments after the second nested instrument has passed through the first peripheral motion assembly.”

The simulator disclosed in the *Bailey* patent is configured to receive a number of different simulated medical instruments at a single orifice, including an endoscope. *See* column 5, lines 15-18. These implements are all received by the structure depicted in Figs. 2 and 3. The *Bailey* patent discloses a single mounted frame assembly, 46; the mounted frame assembly is not configured to engage a peripheral device having a first dimension and pass a second peripheral device having a second dimension. The mounted frame assembly is not configured to “engage the second nested instrument . . . after the second nested instrument has passed through the peripheral motion assembly,” as recited in independent claim 186.

Because the *Bailey* patent fails to disclose or suggest all of the elements of independent claim 186, Applicants believe that independent claim 186 is allowable over the *Bailey* patent.

D. *Claim 200 is patentable over the Bailey patent*

Independent claim 200 recites a method including: “providing a resiliency-providing material disposed between the orifice and the sensing assembly.”

The *Bailey* patent discloses a simulator including an opening 9, through which an implement 2 may be inserted. The simulator device includes a housing 1, and a movement guide and sensor assembly, 10. The movement guide “serves to restrict the motion of the implement 2 within the housing 1.” *See* column 5, lines 33-35.

The movement guide disclosed in the *Bailey* patent is not a “resiliency-providing material disposed between the orifice and the sensing assembly,” as recited by independent claim 200.

Because the *Bailey* patent fails to disclose or suggest all of the elements of independent claim 200, Applicants believe that independent claim 200 is allowable over the *Bailey* patent.

II. Claims 174-200 are patentable over the *Bailey* patent in view of the *Jacobus* patent and the *Gillio* patent

The *Jacobus* patent discloses a simulation system for providing force feedback to an instrument. *See* column 7, lines 15-57. The simulation system includes force feedback system including four actuators, and may include a number of openings for receiving the instruments. *See* Figs. 9 and 10.

The *Gillio* patent discloses teaches a medical simulation system configured to simulate various medical procedures using a mouse corresponding to the particular surgical procedure to be implemented. *See* column 5, lines 7-10.

The *Jacobus* patent and the *Gillio* patent fail to remedy the aforementioned deficiencies of the *Bailey* patent, and therefore, claims 174-200 are allowable over the *Bailey* patent when taken in view of the *Gillio* patent and the *Jacobus* patent.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections, and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that further personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

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